

4.11 SYSTEM SAFETY/RISK OF UPSET

This section addresses the potential impact of upsets (accidents or collisions) that could result in spillage of hazardous material (e.g., fuel, oil, or other petroleum product) at sea or on land.

4.11.1 Environmental Setting

The onshore portions of the Project site lies within areas of moderate to high fire hazard. The Project site does not lie within the airport influence area of the San Luis Obispo Regional Airport, which is located several miles northeast of the Project site. No schools are located within 0.25 mile (0.4 kilometers [km]) of the Project site, and no hazardous materials release sites have been identified along the onshore portion of the Project site.

Offshore areas near the Project site are utilized for commercial and recreational fishing (refer to Section 4.4, Commercial and Recreational Fishing Resources). Further offshore, marine traffic utilizes a designated shipping lane that generally parallels the California coast. Additionally, existing marine communication cables extend offshore from the proposed cable landing zone, either landing at the Sandspit Beach parking lot or other pre-existing landing zones.

4.11.2 Regulatory Setting

This section identifies and discusses the regulations and policies pertaining to system safety and risk of upset that are administered by Federal, State, and local agencies.

Federal Laws and Regulations

International Navigational Rules Act of 1977

The international rules and regulations governing operations at sea were formalized at the Convention on the International Regulations for Preventing Collisions at Sea in 1972 and became effective on July 15, 1977. Congress adopted these rules and regulations as the International Navigational Rules Act of 1977, commonly called 72 COLREGS. These rules, with 1989 amendments, identify all the regulations that govern operations on United States (U.S.) navigable waters. The rules are administered and enforced by the United States Coast Guard (USCG).

1 *Oil Pollution Act of 1990*

2 The Oil Pollution Act (OPA) of 1990 (33 U.S.C. § 2712) requires owners and operators
3 of facilities that could cause substantial harm to the environment to prepare and submit
4 plans for responding to worst-case discharges of oil and hazardous substances. The
5 passage of OPA promulgated the State of California to pass a more stringent spill
6 response and recovery regulation and the creation of the State Office of Spill Prevention
7 and Response (OSPR) to review and regulate oil spill plans and contracts.

8 *Clean Water Act of 1972*

9 The Clean Water Act (CWA) is a comprehensive piece of legislation that generally
10 includes reference to the Federal Water Pollution Control Act of 1972, and its
11 substantial supplementation by the CWA of 1977. Both Acts were subsequently
12 amended in 1981, 1987, and 1993. Overall, the CWA seeks to protect the nation's
13 water from pollution by setting water quality standards for surface water and by limiting
14 the discharge of effluents into waters of the U.S. These water quality standards are
15 enforced by the U.S. Environmental Protection Agency. The CWA also provides for
16 development of municipal and industrial wastewater treatment standards and a
17 permitting system to control wastewater discharges to surface waters.

18 **State Laws and Regulations**

19 *Lempert-Keene-Seastrand Oil Spill Prevention and Response Act (OSPR)*

20 The Lempert-Keene-Seastrand Oil Spill Prevention and Response Act of 1990 (Act)
21 established the OSPR division of the California Department of Fish and Game to
22 provide protection of California's natural resources. The Act covers all aspects of
23 marine oil spill prevention and response in California. It established an Administrator
24 who is given broad powers to implement the provisions of the Act.

25 *Porter-Cologne Water Quality Control Act of 1969 (CA Water Code §§ 13000-13999.10)*

26 This act mandates that the waters of the State shall be protected, such that activities,
27 which may affect waters of the State, shall be regulated to attain the highest quality.
28 This Act established the State Water Resources Control Board (SWRCB) as the
29 principal State agency for coordinated and controlling water quality in California. The
30 SWRCB provides regulations mandating a "non-degradation policy" for State waters,
31 especially those of high quality. The SWRCB is divided into local regional boards.

California Coastal Act of 1976

The California Coastal Act of 1976 created the California Coastal Commission and six area offices, which are responsible for granting development permits for coastal projects and for determining consistency between Federal and State coastal management programs. They also administer tests of oil spill cleanup measures.

Local Regulations

San Luis Obispo County is responsible for enforcing the State regulations for hazardous substance generators, hazardous substance storage, and underground storage tanks (including inspections, enforcement, and removals) in the Project vicinity. The San Luis Obispo County Environmental Health Division (EHD) regulates the use, storage, and disposal of hazardous substances in the county by issuing permits, monitoring regulatory compliance, investigating complaints, and other enforcement activities. The EHD reviews technical aspects of hazardous substance site cleanups, and oversees remediation of certain contaminated sites resulting from leaking underground storage tanks. It is also responsible for providing technical assistance to public and private entities seeking to minimize the generation of hazardous substances.

4.11.3 Significance Criteria

For the purposes of this EIR, a significant system safety/risk of upset impact is assumed to occur if the proposed Project results in any of the following conditions (California Environmental Quality Act [CEQA] Guidelines, Appendix G):

1. Create a significant hazard to the public or the environment through the routine transport, use or disposal of hazardous materials;
2. Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment;
3. Emit hazardous emissions, or handle hazardous or acutely hazardous materials substances, or waste within 0.25 mile (0.4 km) of an existing or proposed school;
4. Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would create a significant hazard to the public or the environment;

5. Be located within an airport land use plan or, where such a plan has not been adopted, within 2 miles (3.2 km) of a public airport or public use airport, and would result in a safety hazard for people residing or working in the Project area;
6. Be located in the vicinity of a private airstrip, and would result in a safety hazard for people residing or working in the project area;
7. Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan; or
8. Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands.

4.11.4 Impact Analysis and Mitigation

Two descriptors determine the level of impact potentially resulting from an upset: criticality and frequency. Criticality classifications, which range from negligible to disastrous, are defined in Table 4.11-1. Frequency classifications, which range from extraordinary to frequent, are defined in Table 4.11-2. When these two descriptors are evaluated together, they define the thresholds of significance. This is shown in Table 4.11-3 where the shaded areas in the matrix represent significant impacts.

Table 4.11-1. Criticality Classification

Classification	Description of Hazard
Negligible	No significant risk to the public, with no minor injuries
Minor	Small level of risk to the public, with at most a few minor injuries
Major	Major level of public risk, with up to 10 severe injuries
Severe	Severe public risk, with up to 100 severe injuries or up to 10 fatalities
Disastrous	Disastrous public risk involving more than 100 severe injuries or more than 10 fatalities

Table 4.11-2. Frequency Classification

Classification	Frequency per Year	Description
Extraordinary	Less than once in 1,000,000 years	An event which has never occurred but could occur
Rare	Between once in 10,000 years and once in 1,000,000 years	An event which has occurred on a worldwide basis, but only a few times
Unlikely	Between once in 100 years and once in 10,000 years	An event which is not expected to occur during the project lifetime
Likely	Between once in 1 year and once in 100 years	An event which probably would occur during the project lifetime
Frequent	Greater than once a year	An event which would occur once a year on average

Table 4.11-3. Definition of Significant Impact

Frequency of Occurrence	Severity of Consequence				
	Negligible	Minor	Major	Severe	Disastrous
Frequent					
Likely					
Unlikely					
Rare					
Extraordinary					

Note: The shaded areas in the matrix represent significant impacts.

Onshore

Construction Impacts Less than Significant

The Sandspit Beach parking lot, where shore-end activities would occur, is not listed as a known or suspected hazardous materials site. All Project activities would occur several miles from the nearest airfield. The Project would not result in potential conflicts with emergency response or evacuation plans. Shore-end activities at the parking lot pose no risk of injuries or property losses due to wildfire because of the lack of vegetation in the parking lot and the low density of vegetation in the surrounding dunes. Cable pulling activities will require the use of vehicles and equipment within wildland areas. However, due to the short-term duration of construction activities and types of equipment to be utilized, wildland fire risk impacts are anticipated to be less than significant.

1 **Offshore**

2 Marine navigational safety concerns that could result in significant impacts include:

- 3 • Increased marine traffic or disruption of marine traffic in local ports and harbors;
- 4 • Navigational hazards caused by Project vessels working offshore; and,
- 5 • Potential increase in marine accidents that result in injury or increase of any
- 6 public risk caused by Project vessels or activities.

7 *Offshore Construction Activities Less Than Significant*

8 Notification of cable laying, cable repair, and landing site construction would be posted

9 in the USCG's Local Notice to Mariners to ensure that mariners on commercial and

10 military vessels, as well as recreational boaters, would be advised of the activity.

11 The Project does not involve the transport, use, or disposal of hazardous material other

12 than the fuel, lubricants, and other petroleum products normal to vessel operations. All

13 international, Federal, State, and local rules and regulations regarding use, transport,

14 management, and disposal of these materials would be followed.

15 Given coordination of the Project with the USCG and precautionary noticing to mariners,

16 an accident during the one-time activities associated with the cable installation is

17 extremely unlikely; in any case, consequences would not be severe. No conflicts with

18 established shipping traffic are foreseen. Since cable installation is a one-time,

19 relatively short-term activity, the risk of upset is considered minimal. In a worst-case

20 occurrence, *i.e.*, sinking of one of the Project vessels or detachment of the trencher, a

21 spillage of fuel oil or hydraulic fluid into ocean waters, and loss of equipment on the sea

22 bottom could occur. AT&T has committed to retrieving any lost equipment to ensure

23 that no obstructions remain on the seafloor. The likelihood of an accident during cable

24 installation is minimized by incorporation of procedures for curtailment of activities

25 during rough weather, the presence of on-board instrumentation that detects potential

26 obstructions during the burial operation, plus the availability of detailed seafloor survey

27 information that establishes where there are rocky areas that could damage the

28 equipment.

29 As to the possibility of a failure, the likelihood of upset is extremely low given the fact

30 that no failures have occurred in modern buried cables on the west coast. Failures

31 have occurred elsewhere in the world, due to trawling accidents and seismic activity or

sediment flows occurring in areas where cables cross steep marine topography. Given the precautions that are part of the proposed Project design, the likelihood of system failure due to accidents is extremely low, and the impact is considered less than significant.

If existing cables are crossed, AT&T's proposed crossing method will be to raise the sea plow and recover it to the deck then lay the cable directly on the ocean floor where the existing cable is crossed. This method is an industry standard when crossing existing facilities and will be used where other utilities are crossed. Additionally, the crossing will be made as close to a perpendicular angle to the existing cable as is practicable.

Significant Impacts during Construction Activities

Impact SYS-1: Accidental Spill during Onshore Construction Activities

Onshore construction activities will involve the use of vehicles and equipment within sensitive areas. A fuel spill would result in a significant impact to the environment (Potentially Significant, Class II).

Onshore construction activities will require the use of vehicles and construction equipment within sensitive areas where the conduit is laid and at the Sandspit Beach parking lot. Re-fueling of vehicles and equipment could result in a fuel spill resulting in a significant impact.

Mitigation Measure for Impact SYS-1: Accidental Spill During Onshore Construction Activities

MM-SYS-1a. Spill Response Equipment. All construction vehicles shall be required to carry absorbent materials to be used in the event of fuel or oil leaks or spills. Sufficient quantities of spill containment and clean-up materials shall be stored at the staging areas for clean up of spills during refueling or servicing of equipment. All spills, regardless of size, shall be cleaned up immediately and reported, if required by existing regulations.

MM-SYS-1b. Prohibition of Re-fuelling Activities and Equipment Repair Near Wetlands and Water Courses. All vehicle or equipment repair or fueling shall occur at least 100 feet (31 meters) from wetlands and water courses.

MM-SYS-1c. Disposal of Spill Recovery Materials. All absorbent material used to clean up leaks and spills shall be disposed of in accordance with applicable hazardous waste regulations.

Impact SYS-2: Incidental and Accidental Vessel Discharges

An incidental and/or accidental vessel discharge during construction activities would result in significant impacts to water quality (Potentially Significant, Class II).

The risk of spills or upsets from the cable laying or repair vessels is low due to normal operational restrictions on vessel activities during more severe sea states. In the event of any spill, the emergency protocol to be followed is described in the ship's emergency response guidelines. Cable laying, repair, and route-survey vessels are fully designed and equipped to carry out these activities anywhere in the world and under all safe sea and weather conditions. All vessels would operate in accordance with Title 33 CFR Parts 154-156.

At the cable landing site, the risk of spill or upset would be minimized by scheduling construction or repair activities when nearshore weather and working conditions are moderate to mild. This is an important scheduling consideration because rough sea conditions are common along the coastal region.

In the event of a spill that exceeds the vessel's clean-up capability, the vessel would immediately coordinate with the USCG to avoid or minimize any effects. A Shipboard Oil Pollution Emergency Plan (SOPEP) for the cable laying ship will be in place as required by the USCG. The cable laying vessel will carry onboard the required spill containment boom and absorbent materials as required by the SOPEP. The cable laying vessel will also have a small powered boat to rapidly deploy the absorption materials to collect any spill or cleanup resources to be used if the spill exceeds the cleanup capability of the cable laying ship. A lead vessel is responsible for overseeing all oil spill containment activities and is identified in the SOPEP of the cable ship.

Impacts of removal of the cable after abandonment would be similar to system safety/risk of upset impacts from cable installation.

To reduce potential impacts from accidental spills from the cable laying ship or support vessels, Mitigation Measure MARBIO-5a and b will be implemented during construction activities.

Mitigation Measures for Impact SYS-2: Incidental and Accidental Vessel Discharges

MM-MARBIO-5a. Zero Discharge Policy. AT&T shall adopt a zero-discharge policy for all Project vessels; no fluids will be discharged into the marine waters shoreward of the 12 mile- (19 km) limit specified by U.S. and State of California regulations.

MM-MARBIO-5b. Spill Response and Recovery Plan. When in California waters and as required by OSPR and OPA-90 regulations, and prior to initiating offshore operations, AT&T will prepare and maintain an oil spill response and recovery plan and sufficient onboard oil recovery equipment to respond to a specified oil spill. If required, AT&T will establish and maintain contract arrangements with spill response organizations that can respond to an oil spill with the appropriate equipment and within the regulation-specified period.

Rationale for Mitigation

The measures presented in this section provide improved protection for system safety and risk of upset. The goal of the mitigation is to minimize, to the greatest extent feasible, safety and risk of upset impacts caused by the fiber optic cable installation.

Table 4.12-4. Summary of System Safety/Risk of Upset Impacts and Mitigation Measures

Impact	Mitigation Measures
SYS-1: Accidental Spill During Onshore Construction Activities	SYS-1a: Spill Response Equipment. SYS-1b: Re-fuelling and Equipment Repair near Wetlands and Water Courses Prohibited. SYS-1c: Disposal of Spill Recovery Materials.
SYS-2: Incidental and accidental vessel discharges	MARBIO-5a: Zero Discharge Policy. MARBIO-5b: Spill Response and Recovery Plan.

4.11.5 Impacts of Alternatives

The CEQA Guidelines emphasize that a selection of reasonable alternatives and an adequate assessment of these alternatives be presented to allow for a comparative analysis for consideration by decision-makers. Two alternatives are discussed for this EIR: (1) No Project Alternative, and (2) Cable Re-route/Maximum Burial Alternative.

1 **No Project Alternative**

2 Under this alternative, the Project would not go forward and the goals and objectives of
3 the Project would not be met. No new cables would be installed and there would be no
4 impact on system safety/risk of upset (Class III).

5 **Cable Re-route/Maximum Burial Alternative**

6 This alternative minimizes the amount of outcropping rock crossed by the cable in the
7 proposed route, therefore maximizing the amount of cable that will be buried out to the
8 6,000-foot (1,830 m) isobath. This alternative considers current regulatory and safety
9 requirements for spacing of fiber optic cables. The duration of cable laying activities
10 would increase by several days under this alternative. Because the proposed cable
11 under this alternative would cross existing cables along the revised route, potential
12 system safety and risk of upset impacts would result. This could occur if a cable laying
13 ship were to snag other existing cables while installing the proposed cable; it could also
14 occur during maintenance of the proposed cable in the future. With this alternative, the
15 long-term benefits of minimizing the amount of outcropping rock crossed by the
16 proposed cable placement offsets the increased short-term risk of loss of system safety
17 and potential for system upset, i.e., during proposed cable installation. Impacts to
18 system safety/risk of upset would be greater than under the proposed Project, but would
19 remain less than significant (Class II).

20 **4.11.6 Cumulative Projects Impact Analysis**

21 The nature and scale of the proposed Project are such that there will be no significant
22 impacts on system safety/risk of upset after mitigation is applied. Other active or
23 proposed projects are located in the Cumulative Projects Study Area as presented in
24 Section 3.5.1, Boundary of Cumulative Projects Study Area, and Section 3.5.2,
25 Description of Cumulative Projects. While some of these projects have marine
26 components, the nature of the projects and their timelines suggest they will not affect
27 the proposed Project. In addition, the proposed Project would not add to possible
28 impacts from the other projects. Hence, cumulative impacts on system safety/risk of
29 upset associated with the proposed Project are less than significant (Class III).